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USSR Report

TRANSPORTATION

No. 15

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CONTENTS

AIR

MINISTER DISCUSSES CIVIL AVIATION IN USSR

Moscow IZVESTIYA in Russian 10 Feb 80 p 2

[Article by A. Nazarov, first deputy minister of civil aviation. "The Mighty Wings of the Country"]

[Text] The reaches of our motherland are vast and the Soviet people created the Civil Air Fleet--the mighty wings of the country--as a match for them.

During four years of the current five-year plan alone, Aeroflot transported more than 393 million passengers and 11 million tons of urgent national economic cargo and sprayed more than 363 million hectares of agricultural lands. The air routes, the length of which now approaches one million kilometers. have linked more than 3,600 cities and populated points in our country and abroad to each other.

Civil aviation is included among the most rapidly developing sectors of the national economy. Because of the constant concern of the communist party and the Soviet government, the latest achievements of scientific and technical progress are utilized intensively at Aeroflot and new types of aircraft and helicopters and other modern equipment are being developed and introduced. Comfortable IL-62, TU-154 and TU-134 air liners are now transporting more than 60 percent of the total number of air passengers.

The Soviet IL-86 airbus, which is now successfully undergoing operating trials, will appear on the lines of Aeroflot during the final year of the five-year plan. As is known, the airbus can haul a total of 350 persons. It will be placed on routes with high passenger turnover and high air traffic density. These will initially be flights which link our capital to the Crimean and Caucasus resorts and the geography of its flights will then be expanded.

Air passengers of neighboring lines will like yet another new machine--the YAK-42. It is designed to transport 120 persons at a speed over 850 kilometers per hour. Operational trials of it will soon begin.

New, more improved equipment will appear on local air lines. The AN-28, which can comfortably carry 15 passengers, will replace the AN-2. The 17-seat aircraft, the L-410, developed by aircraft designers of the CSSR within the framework of socialist economic integration, will also find wider use.

The IL-76T turbojet transport aircraft has given a good account of itself in cargo shipments. It is capable of carrying up to 40 tons of cargo. The machine is being operated successfully in the Siberian reaches and in the Arctic regions and is making cargo flights on international lines.

Modern airships require more complex and improved outfitting of airfields and of ground support of air routes. Aeroflot is carrying out a great deal of construction. The runways, air terminals, hotels and production facilities are being reconstructed. The airfields at Mineral'nyye Vody, Kuybyshev, Kazan, Rostov-na-Donu, Petropavlovsk-Kamchatka, Pevek, Ust'-Kut, Shushenskiy and other cities have recently been prepared to accept the new types of aircraft. Modern air terminals and hotels have been constructed at Orenburg, Gur'yev, Murmansk and Vladivostok. This important and extensive work will be continued during the final year of the five-year plan.

Automated air traffic control systems and the modern radar and radio piloting equipment used by Aeroflot permit more precise scheduling of flights. They are finding ever more important application in passenger servicing in performing such operations as air ticket sales and registration, baggage handling and making available various types of lists and information. The aircraft ticket sales time was reduced to minutes by means of the automated Sirena system, which is well known to air passengers. And the more improved and faster ASU-5 system will replace the Sirena system in the near future.

As the fastest type of transport, aviation permits an enormous advantage in passenger and cargo delivery deadlines. The aviation workers still have many reserves here. For example, the fliers of Alma-Ata have brought flight regularity up to 95 percent. The fact that the aircraft take off on schedule minute by minute is the envy of all. Passengers required 30-40 minutes to receive their baggage at the airport just 2-3 years ago. No more than 15 minutes is now required for this operation. The experience of the Alma-Ata workers is being studied and introduced by all enterprises of the sector.

The civil aviation of the USSR has no equal throughout the world in the volumes and varieties of operations performed in agriculture. It is sufficient to say that the winged assistants of farmers have almost completely taken on themselves the laborious operation of cotton defoliation. They carry out up to 65 percent of all work on herbicide destruction of weeds and almost half of all operations on chemical means of plant protection against pests and diseases.

An aircraft or helicopter is indispensible where urgent delivery of cargo is required and where there are no other roads except air roads. This is primarily true of the rapidly developing oil and gas fields of Western Siberia, the construction route of BAM [Baikal-Amur Mainline Railroad] and the regions of other of the largest new construction projects. Comrade L. I. Brezhnev congratulated the Aeroflot workers on urgent fulfillment of the task of four years of the five-year plan for the use of aviation in the national economy. This greeting aroused enthusiasm for political and labor activity among the collectives and subdivisions and generated a warm desire to work even better with higher quality and efficiency.

International air traffic occupies an important place in Aeroflot's activity. Civil aviation, which now makes regular flights to 84 countries, contributes to expansion of the economic and cultural ties of the USSR with other countries.

The XXII Olympic Games will be held this year in Moscow. Aeroflot has been designated the general carrier for the Olympics. Our air liners must transport tens of thousands of participants and guests of the Olympics. The main passenger flow from abroad will pass through the country's main international airport--Sheremet'yevo Airport, where a new large terminal complex will soon become operational. Reconstruction of Vnukovo Airport, whose capacity will be doubled, is being completed.

Leningrad, Kiev and Minsk airports are also preparing for Olympics transportation. Construction of a new air terminal, which will successfully combine modern architectural examples with traditional Estonian national architecture, is being completed at Tallin.

The number of scheduled flights inside the country will also be increased during the Olympics. This will permit our foreign guests to become closer acquainted with the life of the Soviet people.

The socialist competition in honor of the 110th anniversary of V. I. Lenin's birth has truly achieved an enormous scope at the enterprises, collectives and subdivisions of civil aviation and the patriotic movement to transform Aeroflot to a model form of transport is being widely organized. This will permit expression of firm confidence on the eve of our sports holiday that the aviators will successfully fulfill the 1980 plan and the tasks of the 10th Five-Year Plan as a whole in all indicators.

6521
CSO: 1829

NEW AIRCRAFT NEEDED FOR ANTARCTIC EXPEDITIONS

Moscow VOZDUSHNYY TRANSPORT in Russian 1 May 80 p 3

[Article by Commander of the Flying Detachment of the 25th Soviet Antarctic Expedition, Pilot First Class Ye. Kravchenko: "In the Sky of the Distant Antarctic"]

> [Text] On the eve of the May Day celebration the flying detachment of the jubilee 25th Soviet Antarctic Expedition has returned home aboard the diesel ship "Estoniya."

This year the work of the Antarctic flying detachment proved to be unusually difficult. On 12 December our main, if one can use the word, group arrived in the area of the "Molodezhnaya" station aboard two ships.

The ice made it impossible for the passenger ship to proceed very far. So it became necessary to switch to the diesel freighter "Pioner Estonii." On 14 December we succeeded in penetrating almost to the "Molodezhnaya" station --to within a distance of 70 km.

The unloading of the helicopters onto the stationary coastal ice and their assembly began on the same day. But we had no luck in quickly selecting a location for unloading the Il-14. We had selected a good ice field which seemed to be suitable for unloading and take-off. But it broke up before our very eyes. Finally we found another location protected from the north by a string of icebergs.

Assembly of the unloaded Il-14 went well. Although the group understood that one should expect any number of surprises in the Antarctic, nonetheless misfortune crept up unexpectedly. A swell swept in from the sea and caused the coastal ice to become covered with a network of cracks which quickly grew in size. The ice field was quickly transformed into separate pieces of floating ice. Since the assembly of the Il-14 had not yet been completed, it could sink at any moment. The group on the ice led by the flying detachment's deputy commander V. Golovanov and engineer N. Sheremet'yev speeded up the assembly work to the maximum in the face of the impending danger. As soon as the assembly had been completed V. Golovanov's crew quickly got the aircraft airborne and landed it safely at "Molodezhnaya."

I have recalled this incident only to show again the high level of tenacity, professional skill and ability to perform with precision that are required of an Antarctic pilot.

What work did we not do in Antarctica, in this huge ice-covered country?! We made cargo flights to support the "Novolazarevsk," "Mirnyy," "Vostok" and "Leningrad" ice stations. The wintering of the "Russkaya" station's personnel was made possible totally through our efforts. We flew ice patrols, insured safe passage for ships and carried out numerous requests of scientists. I will not go through a long list. Rather I will say that the plan to support the Soviet Antarctic Expedition has been overfulfilled.

Experienced specialists were selected for our detachment. A high level of consciousness, a sense of duty and mutual assistance characterized the flyers. They repeatedly came to the aid of scientists and sailors in difficult situations. On a January night in the area of "Mirnyy" a piece of ice carrying two sailors from the diesel ship "Bashkiriya" broke away from the mass of coastal ice. Helicopter pilot V. Fateyev, co-pilot V. Shkolin, navigator V. Skopov, flight engineer A. Yastrebov and radio operator A. Petrov came to their rescue. They prepared the helicopter and took off in a matter of minutes. The sailors were rescued from the floating ice and delivered to "Mirnyy." The whole operation lasted thirty minutes.

In the vicinity of the Japanese station "Seva" a piece of ice 40 by 50 meters carrying an airplane of the Japanese expedition broke away and was swept out to sea. Having received a distress call, Soviet helicopter personnel hurried to render assistance. The pilot A. Kukanos, co-pilot Yu. Podorvanov, navigator V. Semikov, flight engineer B. Bukhanov and radio operator B. Kuznetsov removed the Japanese airplane from the ice. Technical assistance in this operation was provided by our engineers and technicians led by senior engineer A. Kolba.

Many good deeds were performed during this expedition. We are pleased that the outstanding Mi-8 helicopters have been in use in the Antarctic for several years. The An-2 workhorses perform well in support of groups of scientists. The veteran Il-14 also performs a great deal of work. But the areas in which research is being conducted are expanding. The scientific programs of the expeditions are constantly growing. Naturally route length and cargo volume are increasing. The Il-14 is having difficulty in satisfying these needs. We are waiting for the aircraft industry to produce new airplanes with a range and payload greater than those of the Il-14. Airplanes which would be capable of flying directly from Moscow to the Antarctic, operate in any of its regions and from which crewmen could select landing strips from the air.

The arrival from Moscow of the Il-18D airplane was a memorable event for both the Antarctic researchers and the aircrews. This is because the aircrews place high hopes on future flights of large-payload airplanes to the Antarctic. Such regular flights will make it possible to reduce the losses of valuable time (up to three months) associated with sea transport. The considerable interruptions in flights will be reduced inasmuch as we will be able to begin flights with teams of scientists aboard earlier. And what is important, this will make it possible to maintain greater aircrew stability which is very important for insuring a high level of flight safety and effectiveness in the bad weather conditions of the distant sixth continent.

9596
CSO: 1829

TESTS OF MI-6 HELICOPTER CARRYING CARGO

Moscow VOZDUSHNYY TRANSPORT in Russian 26 Apr 80 p 2

[Article by M. Makarov: "The Flying Life of Helicopters Must Be Increased; Tyumen'--We Are Searching for Reserves"]

[Text] The helicopter fuselage reminds one of a laboratory. It contains oscillographs, tape recorders and bundles of conductors. All this is alongside an ordinary cargo: provisions for the residents of Komsomol'skiy. The route is not very long: 500 kilometers one way. A short run and the machine is already gaining altitude.

I was lucky. First, the group of workers of the Scientific Research Institute for Operation and Repair of Aviation Equipment completed testing the MI-6A. Second, the flight was the last check of young candidate for commander V. Gorbachenko. And third, the crew of Hero of Socialist Labor Yuriy Aleksandrovich Yuzhakov, about whom our newspaper talked quite recently, was flying the machine.

One can't leave the number one helicopter pilot, as he is called at Tyumen', separate from important and interesting matters. Especially when he tested the MI-6 and "taught" the machine many operations (to take suspended pipe delivery).

Yuzhakov flew for a whole month with a scientific group on board.

"Yuriy Aleksandrovich's experience and his excellent knowledge of the helicopter were very useful to us," says the chief engineer Yu. Prokhorov.

"We were flying at an altitude of 200 meters and it will be even more difficult higher--there is a strong head wind."

We were flying over the Uray. The first oil was found at one time here. Yuriy Aleksandrovich was also among the first discoverers of the underground resources of the kray and at that time flew on an MI-4. And he was perhaps a little older than Viktor Gorbachenko in seniority, who is now sitting in the commander's seat. The knowledgeable tutor taught tens of young helicopter pilots to fly intelligently during this time.

We reached Komsomol'skiy within two hours. The customers did not let us down: they literally unloaded the helicopter within half an hour. After refueling the machine and lunch at Sovetskiy Airport, we returned to Tyumen'. Our MI-6A has now climbed above the clouds to 2,500 meters--the wind is already a tail wind and it helps us.

Work is going on at full tilt in the airborne laboratory. N. Davydov, P. Zhirov and V. Kazhayev, operators of the monitoring and recording apparatus attentively follow the operation of the instruments through head phones. Each one is caught up in the matter. They record all signals of the sensors in different assemblies and attachments.

"Will these data be indicative since the helicopter is flying empty?" I ask the chief engineer.

"We 'listen' to the machine in all operating modes. We have flown with various types of suspended cargo: sailing type, rocking type and the heaviest maximum. This is the way the cargo on board has varied. At the same time we did not simulate anything. This is an ordinary helicopter and these are ordinary planned tasks. True, we were especially interested in cruising."

We are descending. Plekhanovo Airport is ahead. The machine taxies up to its parking area. The flight and at the same time the experiment are completed. Thus, what did the consultation solve?

The group operations manager of the NII ERAT [Scientific Research Institute for Operation and Repair of Aviation Equipment] Yu. Alferenkov says:

"The flight strength investigations of load characteristics on the helicopter structures under real operating conditions were carried out for the first time in our country. The main purpose is to obtain objective information to determine the capabilities for increasing the designated flying life. The collected data will be processed on the computer in the near future. But we have carried out express analysis, the results of which are quite optimistic. We think that the flying life of helicopters of this type can be increased by 3,000 hours. And this with the appropriate routine maintenance."

The chief engineer of the Tyumen' Order of Red Banner of Labor Civil Aviation Administration V. Boldyrev says:

"Extending the flying life of MI-6A helicopters by 3,000 hours will provide a savings calculated at many millions of rubles. And this is for our administration alone."

The life of the MI-6A helicopter should be extended. Both the scientists and practitioners, whose union was very fruitful, arrived at this conclusion.

6521
CSO: 1829

BRIEFS

NEW AN-28 ENGINES--As is reported in the weekly SKSHIDLATA POL'SKA, the Polish aircraft-construction industry has begun production of the Antonov-designed AN-28 aircraft. The airplane is equipped with two turbofan engines which will be manufactured under Soviet license. In case of necessity the aircraft will be able to take off on one engine. The weight of the engine is 230 kg. Maximum (take-off) power at the shaft with variable pitch is 906 hp. The latest technological processes are being employed in the manufacture of the engines, which make it possible to reduce considerably the expenditure of metal. [Text] [Moscow VOZDUSHNYY TRANSPORT in Russian 26 Apr 80 p 3] 9512

NEW AIR ROUTE--Tashauz, Turkmen SSR--A new direct air route has been opened between Moscow and the Turkmen oblast center of Tashauz. TU-154 aircraft will fly on this route. The first scheduled flight to the capital was accomplished by a crew headed by Capitan Yu. Tregubov. [Text] [Moscow VOZDUSHNYY TRANSPORT in Russian 29 Apr 80 p 1] 9512

NUKUS AIR TERMINAL COMPLEX--Architects in Uzbekistan have drawn up plans for a new air terminal complex in Nukus, the capital of Karakalpakiya. The first floor will be reserved for ticket reservations and baggage handling. On the second floor will be a waiting area, offices for "Intourist," a room for mothers with children, shops and restaurants. The third floor will be occupied by the administration services of the Nukus airport. A spacious area for a storage room has been set aside in the semi-basement. Construction is planned alongside the existing air terminal which in time will be changed over to local service. At present, reconstruction of the runway is also being carried out according to a design provided by specialists of the "Uzgiproavtodor" Institute. The capital of Karakalpakskaya ASSR, crossed by many of Aeroflot's lines, will soon acquire a modern airport which will accept the IL-62 and TU-154 aircraft as well as other high-speed jets. It will become an alternate landing field for airliners flying from Central Asia to the country's central regions and back. [Text] [Moscow VOZDUSHNYY TRANSPORT in Russian 4 May 80 p 1] 9512

YAK-42 IN SERVICE--An elated mood reigned on this June morning at the Donetsk aviation enterprise. A guest was expected. It appeared at noon, at first just a barely noticeable point on the horizon. With each passing

second, however, the outline of a snow-white jet aircraft became clearer and clearer. After a short landing run, the first Yak-42 taxied to the Donetsk terminal apron. Down the ramp came executives of the design bureau and members of the crew headed by test pilot and Hero of the Soviet Union V. Mukhin. There were flowers, firm handshakes and congratulations on the arrival at Donetsk. The airport pilots climbed on board the Yak-42 in groups. There members of the State commission acquainted them with the aircraft's cabin and its flight performance data. The 120-seat passenger compartment finished in synthetic materials is a pleasure to behold. Thus began operational testing of the Yak-42. In a short time these aircraft will visit the Donetsk airport on a permanent basis. [Text] [Moscow VOZDUSHNYY TRANSPORT in Russian 10 Jun 80 p 1] 9512

MURMANSK-NIKOLAYEV AIR ROUTE--Murmansk--Scheduled air traffic began yesterday on a new air route connecting the Black Sea port of Nikolayev with the city of Murmansk, located beyond the polar circle. The route will be served by TU-134 aircraft. There will be five scheduled flights weekly. [Text] [Moscow TRUD in Russian 29 May 80 p 2] 9512

CSO: 1829

OLD ACCOUNTING STILL USED IN MOTOR TRANSPORT, ELSEWHERE

Moscow PRAVDA in Russian 17 May 80 p 2

[Article by V. Parfenov: "What Comes After the Experiment?"]

[Text] Ten years have passed since one of the major common-carrier transport organizations--Glavmosavtotrans [Moscow Main Administration of Motor Vehicle Transport]--began a large-scale economic experiment. The essence of the experiment was that this administration was to cease evaluating the economic operations of its enterprises on the basis of growth in freight turnover measured in kilometer-tons. The main criteria for evaluation would henceforth include fulfillment of specific orders for conveyance of freight in accordance with contracts in force.

A decade is not a short time--even for such a large-scale experiment. The time has come to interpret its results and decide just what is to come after the experiment. Can the experience gained be used to improve the economic mechanism of motor transport?

Let us recap the reasons why it became necessary to replace gross freight turnover with other evaluation criteria. These facts are known to many. A trust is building a new facility. Materials and structural components are being delivered by the municipal motor vehicle depot. Work on construction of the facility falls far behind schedule, but the transport workers are awarded a bonus for the quarter. Why? Because they managed to "crank out" kilometer-tons somewhere else. And the opposite also happens: builders are rewarded for putting a facility into operation ahead of schedule, but the motor transport organization that delivered freight for the project is "forgotten."

There is a simple explanation for all this: there are no firm economic ties established between these cooperating entities. "Assign this many vehicles," the builders demand. The motor depot sends the vehicles and the matter is closed. How efficiently the vehicles perform on-site is a low-priority concern.

In their chase after kilometer-tons, motor depot managers often send KamAZ, Zil and BelAZ vehicles great distances on a "free search" for freight. Thus the drivers "take care of the plan" of their own depot and are themselves none the poorer for it. Let us say that there is some ferro-concrete, metal or coal to be transported a very great distance--they will do it gladly. But cartons of shoes, clothing and other such "fl "fluff and feathers" will be transported only as a last resort. But what moral casualties are inflicted by this chase after kilometer-tons! It gradually and imperceptibly corrupts the psychology of some while it turns others into self-serving lovers of fast and easy money.

These and other similar phenomena compelled the capital's motor transport workers to decisively alter evaluation criteria and organization of their operations 10 years ago. A goal was set for the Glavmosavtotrans experiment--to integrate the goals and interests of the motor depots more closely with the specific tasks of those organizations using transport services. How does this look in actual practice?

In order to build an apartment building, let us say, it is necessary first of all to prepare the brick or ferro-concrete components and then transport them to the building site. Only then can the building itself be erected. The transport organization, as it transports freight items for the project, is one of the links in the technological chain.

The interrelationship between production, transport and trade is typical. The city's bakeries bake bread and pastries. Delivery of the goods to all commercial establishments by the appointed hour is a function of the motor transport organization. Being an organic link in this technological chain, it would be absurd for the motor transport workers to chase after kilometer-tons. The main thing is to deliver the products to consumers on time and loss-free, with the lowest possible expenditure of time and fuel.

But freight delivery times can be shortened and expenditures reduced only if vehicles are dispatched along the shortest possible route. Given this set of circumstances is it necessary to bemoan the fact that freight turnover in kilometer-tons declines? Of course not.

The 10-year experiment of Glavmosavtotrans under the new conditions proved of high merit. Responsibility of motor depots for delivery to customers all goods as specified by contract was strengthened. After all, this criterion, along with gain in profits, became the primary condition for creation of incentive funds. The experiment proved that it is possible to do very well in motivating people even without kilometer tons. Kilometer-tons now play a supporting role. Logistical and planning organs use this indicator to calculate the requirements of depots for rolling stock, fuel and other resources.

A high rate of growth in the second primary indicator--profit--made it possible for many depots to be restructured along modern lines and for social problems to be solved in a short period of time. It is important also that the enterprises of Glavmosavtotrans are distributing profits earned between the state and the motor transport collectives according to stable norms established for the whole 5-year plan. This motivates motor transport worker collectives to constantly seek out all new reserves and ways to improve service to their clients.

The new evaluation criteria, freed of the kilometer-ton race, enabled Moscow's drivers to steadily decrease their expenditure of fuel--something that cannot be said of organizations still operating under the old system.

To better interpret results of the experiment, let us acquaint you with the operations of one of the major subunits of Glavmosavtotrans--motor vehicle combine No 1, where Gennadiy Leonidovich Krauze is the director. This organization has 5,000 employees and 2,300 vehicles. Subunits of the combine, working on a rotating schedule, are in operation around the clock. They deliver more than 3 million tons of freight annually, serving the 3 largest housing construction combines in Moscow--First, Second and Third. The construction program of these combines calls for opening of 2.2 million square meters of living space each year--more than half of the total program for residential construction in the capital.

It is important too that materials arrive at each house under construction in strict accordance with the building sequence. Panels and structural components are installed by cranes directly from the trucks, without being transferred to storage at the building site. And detachable semi-trailers are widely used to reduce the length to time trucks must stand idle at the site. Such a system of delivery and installation of structural materials increases productivity of labor in housing construction by 20 percent.

In order to increase efficiency of rolling stock (and reduce freight turnover!), 16 branch stations have been built for the motor vehicle combine. They are situated near "freight-generating points"-- plants of the construction industry. The combine transports 900,000 tons of freight each year along circular routes that have been mapped out on a computer. A significant percentage of the freight is delivered in containers and cartons and on pallets. The combine's computer center knows at every minute, day or night, where each of its 2,300 vehicles is located as well as the status of each of the buildings being erected "from its wheels."

Vehicle drivers receive 25 percent of the additional tariff payments for precise fulfillment of the time table. If building materials are delayed through the fault of transport, the motor depot answers to the builders in rubles. Cost accounting is in effect not only in the combine as a whole, but also in the low-level entities--all the way down to brigade.

The economic operations methods developed by Glavmosavtotrans were first introduced in the motor transport ministries of Belorussia, Latvia and Georgia in 1974. Common-carrier transport in Kazakhstan has now been added to this list. The experience of motor transport workers in the capital and these republics has proved the great advantages of the new system of operations. And it should be pointed out here that the Moscow experiment clearly showed that the gross volume criterion--kilometer-tons--should be removed from the primary evaluation criteria and relegated to the recordkeeping category. However, when the Moscow experience was disseminated in the aforementioned republics the inter-departmental commission of USSR Gosplan retained freight turnover in kilometer-tons as a primary evaluation criterion.

Recently the Belorussian Minister of Motor Transport, A. Ye. Andreyev, and the chief of Glavmosavtotrans, I.M. Goberman, visited the PRAVDA editorial offices. These experienced managers and Heroes of Socialist Labor joined in one voice to ask our editors to help in freeing the motor transport organizations involved in the experiment from the obsolete gross volume criterion--freight turnover in kilometer-tons.

"Those that oppose revamping the criteria are those who do not want to get off the familiar, well-worn track in their planning," says A.Ye. Andreyev.

He is supported by I.M. Goberman:

"We have not used freight turnover as a primary criterion for 10 years, but when competition results are tallied they sometimes recount everything by the old method. And if they see that we have fallen short in kilometer-tons they look askance at us and do not number us among the competition winners."

We cannot fail to address the position taken by defenders of freight turnover, especially in railway transport, as well as some in motor transport. They contend that shipment is the end product of transport. And volume of shipment supposedly cannot be measured by anything other than kilometer-tons.

But shipment is not the end product of transport! Its main goal is the timely delivery of certain types of articles to specific addresses and the fulfillment of consumer orders. Delivery of goods according to contracts is clearly oriented toward attainment of a definite end result of transport operations. Herein lies the difference between shipment in general and the fixed plan for delivery of freight.

The cost for shipment of each ton of freight, in those branches of transport where operations are evaluated by growth in freight turnover, is rising at quite a rapid rate. In the past 10 years the cost of shipping 1 ton of freight by rail has increased by almost 2 rubles.

The picture is entirely different in Glavmosavtotrans organizations. The evidence is in the results of their work. In 8 years the average distance has not increased, but decreased from 21.26 to 17.86 kilometers, i.e. a decrease of 16 percent. Why? Because Moscow's motor transport workers have truly disregarded freight turnover as a primary criterion for evaluation. And the reverse is also true: in those organizations that are chasing after kilometer-tons, inasmuch as this is still a primary criterion, the average shipment distance is increasing.

Thus 10 years of experience by Glavmosavtotrans proved that we can and must rid ourselves of the wasteful influence of the obsolete gross volume indicator--freight turnover in kilometer-tons--and relegate it to a supplementary role. However, on the other hand, there are still many proponents of the old method. I would like to know how they plan to carry out in practice the well-known resolution of the CPSU Central Committee and USSR Council of Ministers on improvement of the economic operations mechanism. It is, after all, directed specifically against the gross volume approach to evaluation of the work of worker collectives.

It must be kept in mind that countrywide transport costs amount to tens of billions of rubles annually; one-third of these costs are for motor transport. This is why it is so important that it be made clear that growth in freight turnover is not a labor victory, but an increase in state expenditures.

And in conclusion--a word about the fate of the Glavmosavtotrans experiment. In recent years we have been conducting many experiments. They are helping us to improve the economic operations mechanism and thereby more successfully implement decisions of the party congresses on economic questions. We should at least heed the fact that many experiments are begun but never carried through to completion, never introduced widely enough or completely "forgotten." Who will analyze the experience worthy of attention, of the Moscow motor transport workers? I would like to know whether it was taken into account in the final formulation of evaluation criteria for transport.

The interdepartmental commission of USSR Gosplan is closest to this problem. Obviously, the ball is in their court.

12184
CSO: 1829

MOSCOW RAILROAD SYSTEM IN 1980 DESCRIBED

Pledges for 1980

Moscow GUDOK in Russian 26 Apr 80 p 1

[Article by I. Paristyy, chief of the Moscow Railroad; O. Makarov, chief of Glavzheldorstroy Severa i Zapada [Main Administration for Railroad Construction in the North and West]; M. Mityushin, chairman of the dorprofsozh [the railroad's committee of the Trade Union of Railroad Transport Workers] of Moscow's transport builders; and V. Bogdanov, secretary of the Moscow Railroad's dorprofsozh, at the instance of the collectives: "Build Transport Facilities Ahead of Schedule."]

[Text] The higher socialist commitments of the capital's railroaders and transport builders.

The collectives of the capital's trunk line and of the Moscow trusts under Glavzheldorstroy Severa i Zapada have examined the joint socialist commitments for the current year. A counterplan has been adopted that moves up the deadlines for introducing into operation the most important facilities of the Moscow Terminal and will promote a most rapid increase in the railroad's throughput and carrying capacity. The collectives, filled with resolve to make the concluding year of the Tenth Five-Year Plan a year of Leninist shock work, the year of active preparation for the 26th party congress, commit themselves:

To finish, a year ahead of the planned deadline, reconstruction of the Iobnya carbarn for the repair of 12-car sections without uncoupling, and to turn it over in the fourth quarter of 1980;

Considering the importance of further development of the Moscow Terminal, and also of the conduct of the Olympic Games in Moscow in July and August, to turn over prior to 30 May, a month ahead of schedule, the track reconstruction of the central throat of the Moscow-Kiev Passenger Train Railroad Yard, which will provide for the reception and dispatch of westbound long-distance trains at the platform of Kievskiy Station. To introduce into operation 3.4 km of additional track between Solnechnaya and Ochakovo stations during the third quarter--a half year ahead of the planned deadline,

and to connect 10 switches at the Ochakovo Railroad Yard to a central control tower before USSR Constitution Day. (Introducing the indicated facilities into operation ahead of time will enable long-distance trains whose length has been increased to as many as 20 cars to be received and dispatched, and the intensity of suburban train traffic to be increased);

To introduce the startup complex of the Savelovo-Smolensk crossline into operation by USSR Constitution Day--3 months ahead of schedule; this will enable Moscow and Moscow-Oblast transport service to be improved by the organization of transfer-free passenger trains from the Savelovo route to the intraurban Kursk-Oktyabr'skaya Railroad crossline and the Smolensk line;

For the purpose of improving the living, cultural and personal-services conditions for railroad workers of the Bekasovo Railroad Yard, to prepare a 90-unit apartment house for turnover for permanent operation in July, 5 months ahead of schedule;

To complete in December, a year ahead of time, reconstruction of the humps of the Perovo Railroad Yard. (This will enable unimpeded reception of long freight trains to be provided for, the handling capacity of the railroad yard to be raised by 15 percent, working conditions for operators to be improved, and labor productivity to be raised); and

To introduce ahead of time, by Railroad Workers' Day, a cafe and dining hall at the locomotive barn of the Moscow Classification Yard.

Cooperation of Builders, Railroaders

Moscow GUDOK in Russian 13 May 80 pp 1-2

[Article: "Finish Decisive Facilities Ahead of Time!"]

[Text] GUDOK of 26 April published the counterplan of the capital's transport builders and railroaders, which was aimed at erecting and introducing into operation ahead of schedule facilities that are most important to the Moscow Railroad. They adopted the policy of seeking out internal reserves to increase the throughput and the carrying and handling capacity of the railroad in a shorter time without obtaining additional funds or capacity.

The initiators' move was approved at a session of the presidium of the Central Committee of the Trade Union of Railroad Transport Workers. And on the eve of Victory Day a gathering of the activist element of transport construction workers and railroaders of the Moscow Railroad and of the Moscow Division of the Oktyabr'skaya Railroad met in a Mintransstroy [Ministry of Transport Construction] conference hall. Advanced workers and brigade leaders, managers of construction organizations, railroad divisions,

Glavzheldorstroy Severa i Zapada [Main Administration for Railroad Construction in the North and East] and the Moscow administration and representatives of party and trade-union organizations were invited to the meeting. Taking part in its work were Deputy Minister of Transport Construction V. A. Brezhnev, secretary of the Central Committee of the Trade Union of Railroad Transport Workers N. N. Lavrent'yev, and Deputy Manager of the Section of Transport and Communications of the Moscow City Committee of the CPSU V. N. Lutsenko.

Prior to the start of the meeting, the participants animatedly discussed the toughest questions and gave opinions. This concerned the most important problems--those of raising the throughput and carrying capacity of the Moscow Terminal and of creating the best operating and living conditions for railroad workers.

We approached certain participants with one and the same question: what do you expect from a strengthening of collaboration of workers of the capital's main line with transport builders?

G. Akhramenko, chief of the Bekasovo Classification Yard: "Our classification terminal is new, and it still has many deficiencies. A mechanized car-repair facility awaits completion, and 'heat' must be brought to the service buildings in the train-forming area."

R. Cherepashenets, chief engineer of the locomotive service: "The joint commitment includes the construction of a shop in the Lobnya carbarn and a dining hall in the Moscow Classification Yard. But this is not much. The locomotive barn at that same Bekasovo Classification Yard must be completed and facilities for the locomotive activities in Kurbakinskiy, Cherusty, Kurovskiy and other important points on the capital's mainline must be put into operation."

A. Il'in, chief of the Moscow-Kiev Passenger-Train Railroad Yard: "Much work must be completed on reconstruction of the railroad yard by Olympiad-80. We have resolved to help the builders, we are laying assembled track lengths at five receiving-and-dispatching tracks of the platform, and we are carrying out a number of other operations. Success will depend upon our teamwork. We expect that this collaboration will be strengthened each day."

...The Moscow Terminal, Glavzheldorstroy Severa i Zapada chief O. Makarov noted in his address, occupies an important place in the country's transport system. It does a large share of the passenger and freight hauling. The economic activity of more than Moscow and Moscow Oblast depends upon the work rhythm of the capital's mainline.

Muscovites are doing much to speed up the hauling process. It is they who gave birth to the movement to form and run trains of increased weight and length. In the first 4 months alone of this year, 90,951 heavy trains

were dispatched, enabling 32,170,475 tons of freight above the norm to be hauled. Thirty locomotives per day have been released for additional hauling.

During the first 4 years of the Tenth Five-Year Plan transport builders, jointly with operators, relying on an agreement for labor collaboration, erected and turned over for operation 20 km of new lines and more than 100 km of second and third track, more than 300 km of line were electrified, and about a thousand switches were connected to central control. Simultaneously, housing, polyclinics, schools and kindergartens were built. Much has been done. But it is necessary to build even more effectively. This year 30 million rubles' worth of work should be carried out at Moscow Railroad facilities. Two sections of new line and some second track are to be introduced into operation, and 176 switches are to be connected to central control.

The eighth plenum of the Central Committee of the Trade Union of Railroad Transport Workers, which met in January, called upon trade-union committees and activity managers to join the collectives in efforts to solve the tasks that were set forth by the November 1979 Plenum of the CPSU Central Committee and to promote large-scale socialist competition for successful fulfillment of tasks of the year and of the Tenth Five-Year Plan.

The transport builders, jointly with the railroaders, reviewed the progress of the work and came to the conclusion that the deadlines for their completion can be moved up if the work is undertaken jointly and if the counterplans are reinforced by an agreement about labor collaboration. Thus, for example, it was decided to finish reconstruction of the Lobnya carbarn a year ahead of time.

The tasks for all agreement participants were well thought out: Moselektyagstroy [Moscow Trust for the Construction of Railroad Electrical Traction Systems], will turn over the barn being erected to Tsentrotranstekhmontazh [Trust for the Installation of Transportation Equipment in the Central Economic Region], which will complete the sanitary-engineering and electrical installing work in the third quarter and the outside grid of the water-system pipelines and the sewer systems not later than the fourth quarter.

The Moscow Railroad, after shipping all the equipment in the third quarter, will replace the transformer of the existing traction substation. It will install signaling systems and the catenary system and will also install the inside and outside telephone lines.

And these arrangements have been made for each of the seven most important facilities at which it has been decided to win time. The railroad division, the trusts, the construction trains and the brigades know precisely what they must do and by what date.

New equipment has been concentrated at the facilities to carry out the counterplans, said O. Makarov, chief of Glavzheldorstroy Severa i Zapada:

8 excavators, 7 bulldozers, 40 dump trucks, 30 sidewall trucks and about 20 load-lifting cranes of different types.

The strenuous commitments have also been fortified with materials: rolled section and cement, and the deadlines for delivering switches, squared beams, ties and other parts of the track's upper structure have been moved forward. The brigades have been manned completely with specialists.

Collaboration with the railroaders affects the builders' operating indicators favorably.

"Tsentrotransstroy [Main Administration for Transport Construction in the Central Economic Region] for the first time in recent years has carried out the plan for the first 4 months," said brigade leader of SMP-321 [Construction and Installing Train No 321] V. Matveyev. "But despite the results achieved, there are still many difficulties facing us, there is much for us to do, and we must make 1980 a year of Leninist shock work, the year of preparation for the 26th Congress of the Communist Party. Our trust's collective and the Moscow mainline have adopted commitments that obligate us, for example, to carry out a year ahead of time reconstruction of the classification and the arrival humps of the Perovo Railroad Yard. We are doing everything possible to keep our word."

The activists' meeting was conducted in businesslike fashion: the speakers told not only about what is being done but also about plans. Chief Engineer of the Moscow-Ryazan' Division N. Mer noted that, thanks to collaboration with the builders, much experience in developing mainline routes and the eastern portion of the Greater Moscow Peripheral Ring had been gained. And right now it is important to use it during reconstruction of the Nikolayevka, Perovo and Moscow-Kazan' passenger-train yards.

A staff is working on the Moscow-Ryazan' Division. Each week it examines work progress and monitors the opening of "windows" and the forwarding of freight for construction work.

Trust manager V. Moroz of Moselektrotyagstroy manager V. Moroz, SMP-801 chief Ye. Zhulin, Mostransstroy [Moscow Construction and Installing Trust for Transport Construction] party organization secretary V. Filatov, and P. Sobolev, chief of Mosgiprotrans [Moscow State Design and Survey Institute of the USSR Ministry of Transport Construction] discussed in detail the jobs of their collectives, which were based on agreements about labor collaboration with the operators.

In summing up the results of the important businesslike talks, chief of the Moscow Railroad I. Paristyy noted that 2 billion rubles had been invested in developing the activities of the capital's mainline in 20 years. Without this investment, supporting the tremendous amount of haulage that is being performed today at the Moscow Terminal and at its approaches would be unthinkable.

However, the requirement for increasing the throughput and carrying capacity of the terminal is increasing continuously, and the deadlines for introducing new lines are, unfortunately, being drawn out intolerably in some cases. Where is the way out of the situation? Experience in the collaboration of the railroaders with construction workers that has been proved over many years.

It is known that activity on freight lines often is slowed because the builders have not opened a "window." On the Moscow Railroad they found a way out. On such a freight route as the Rybnoye-Perovo, the forming of heavy and long trains helped to cut the amount of traffic, which enabled bigger "windows" to be opened for the builders and repair workers.

"We guarantee the 'windows' in accordance with the requests of the construction workers," said I. Paristyy. "But we ask that maximum results be obtained in the hours that the 'open' road is closed."

The main source for increasing the capacity and for providing equipment for the line today and tomorrow is the reconstruction of transport facilities. Thus, at the Perovo Railroad Yard alone, such work will enable its handling capacity to be raised by 15 percent, and the reconstruction of humps will allow unimpeded reception of trains up to 150 standard cars in length. This will reduce still more the number of unit trains on the open line and thereby will create additional opportunities for the builders.

The collaboration of railroads and builders is the foundation for their mutual increased commitments, which are aimed at the most rapid development of transport.

When the work of the activists' meeting had concluded, chairman of the dorprofsozh [the railroad's committee of the Trade Union of Railroad Transport Workers] of Moscow's builders M. Mitushin gave the floor to T. Durasova of tile-and-facing SMP-102 of Mostransstroy:

"The collectives of the Moscow trusts of Moselektrotyagstroy," the girl's voice rang out in the hall, "Tsentrotransstroy, Mostransstroy, Glavtranselektromontazh, and the general contractor Mosgiprotrans for the capital's mainline and the Moscow Division of the Oktyabr'skaya Railroad appeal to all transport builders and operators: speed up construction and introduce MPS [Ministry of Railways] facilities into operation, to promote an increase in throughput and carrying capacity.

"Make counterplans!

"We will make 1980 a year of Leninist shock work and the year for preparation for the 26th party congress."

The friendly applause of all the activist meeting participants was a clear endorsement and unanimous approval of this call by those attending.

Now it is the word for other builders' and railroaders' collectives.

11409
CSO: 1829

BELORUSSIAN RAILROAD INDUSTRY REVIEWED

Problems Scored

Minsk SOVETSKAYA BELORUSSIYA in Russian 30 Apr 80 p 2

[Article by collective correspondent of SOVETSKAYA BELORUSSIYA, editorial staff of ZHELEZNODOROZHNIK BELORUSII: "An Exact Rhythm for Railroad Transport"]

/Text/ At the beginning of the year Belorussian railroad workers adopted high socialist obligations and unleashed a constant struggle to implement them successfully. Mass socialist competition has been an important means in the fight to carry out state plans ahead of schedule, to increase the efficiency and quality of the transport process. The following groups have successfully completed the plan assignments for March and the first quarter: Minsk-Tovarnyy, Orsha, Volkovysk, Brest-Vostochnyy, Barbarov, Novopolotsk, as well as the railroad-car depots of Brest, Molodechno, the Gomel' section of track, the Baranovichi and Brest mechanized freight-handling sections, and other management sub-divisions of the Belorussian Railroad.

The precise, well-coordinated operations of the main line's groups has, to a great extent, facilitated the successful carrying out of the quarterly haulage plan by the railroad workers. During the first three months of the current year hauls have increased, as compared to the corresponding period of last year by 10,000 tons a day. All divisions of the railroad overfulfilled their assigned tasks. The March haulage plan was exceeded by more than 2.5 percent. Unloading operations have been carried out at a rapid pace. Thus, in March every day 122 cars more than the plan were unloaded. In the heavyweight trains more than seven million tons of freight for the national economy above the norm were hauled.

However, can transport workers consider their task fulfilled if tens and even hundreds of thousands of tons of diverse freight has remained not shipped out? Railroad workers have a duty to the republic's national economy with regard to the delivery to consumers of peat, scrap metal, metal products (rolled and drawn stock), machinery, fertilizers, industrial commodities, and other goods. Qualitative indicators are particularly low at the Mogilev Division. For example, out of 28 types of goods the plan here was fulfilled for only 13 types. But, of course, the successful operation of many operations depends upon the timely delivery to consumers of raw material, fuel, materials, and other goods. For some reason they have forgotten about this at the Mogilev Division.

Today it is obviously not enough to evaluate the work of railroaders by how they fulfill their plans. First of all, we must take into consideration how transportation workers ensure the national economy's needs with respect to hauls. And here everything was far from favorable. For example, the pace of freight loading during the past month was considerably lower than, let's say, it had been in the past year during March. But there are really no valid reasons at all for this.

Management supervisors of services and certain of the railroad's divisions often refer to the shortage of empty cars, the non-delivery of freight for hauling by individual enterprises, and to unsatisfactory work with rolling stock at the sidings (spur lines) of their clients. Then how, it may be asked, can the fact be explained that every car in March was idle in freight operations for an average of 24 minutes above the norm? This was for the railroad as a whole. While on the Gomel' Division, on the contrary, they were able to achieve a reduction in idle time by 25 minutes and on the Baranovichi Division--by 10 minutes. Can it be possible that these divisions are in a more advantageous position than the Minsk, Mogilev, or Vitebsk Divisions, where they have not only failed to cope with important qualitative indicators but have even made them worse in comparison with March of last year?

The Vitebsk Division has long been in a feverish state. And in March here the following indicators turned out to be below the plan levels: turnover of local cars, their idleness at one technical station, section speed, locomotive productivity, average train weight, and other criteria of operational work. Moreover, the railroad workers of this and other divisions cannot say that they are being supplied by their clients. Many groups have considerably improved their work with rolling stock and have achieved a reduction in the idle times of cars during freight-handling operations. Two thirds of all this republic's enterprises and all the oblasts have met the norms for idle time. Vitebsk, furthermore, has reduced car idle time by 10 percent, as compared with the norm. The enterprises of Polotsk, Baranovichi, and Orsha have managed to accomplish this task. Quite good results have been achieved by the Ministry of Local Industry and Belneftesnabsbyt. Considerable improvement in their work, as compared with an analogous period of last year, have been made by enterprises under the jurisdiction of the Ministries of Light, Meat, and Dairy Industries, Goskomsel'khoztekhnika, and Agriculture. The Minsk Motor-Vehicle and Tractor Plants, the Mogilev Metallurgical Plant, and others have worked persistently with cars. As a result, more than 1500 cars have been freed for supplementary hauls.

But there is little of this today. Because a number of enterprises which utilize the services of the railroad do not observe the time periods established for unloading the shortage of rolling stock is increasing. Thus, there is a worsening of work with cars by enterprises by the Belorussian SSR Ministries of Fuel Industry, Housing and Community Services, and Automotive Transport. The following did not fulfill their norms for car idle time in March: enterprises of the Ministries of Agricultural Construction, Food Industry, Construction and Operation of Motor-Vehicle Roads, Trade,

Belorussian SSR Gossnab, Belkoopsoyuz, and Belzeshkolkhozstroy. Nor have matters been in good shape at the Minsk Heating-Equipment Plant, the Mogilev United Railroad Service, the "Bobruyskshina" Production Combine, and several others.

As before, a significant number of cars are being diverted by enterprises which are under the jurisdiction of the Belorussian SSR Ministry of Procurement. Among these are the Borisovo Bakery-Products Combine, the Molodechnenskaya Bakery-Product Base, the Lidskiy Mixed-Feed Plant, the Shklovskoye, Shumilinskoye, and Verkhnedvinskoye Bakery-Products Receiving Enterprises.

The Krichevskiy Cement-and-Slate Combine is to blame that a supplementary 139 cars were not utilized for an entire month because of too much idle time of rolling stock. Resulting from the fault of lagging ministries and departments in March about 5,000 cars of supplementary haulage were lost.

And no small blame in this matter falls on the transport workers. And, in fact, who if not the railroad workers are obliged to act as initiators and organizers of the precise and well-coordinated operation of all units of the haulage conveyor system. How to achieve this is taught by the example of the group at the Minsk-Tovarnyy Station, whose experience in utilizing cars has been approved this year by the Central Committee of the Communist Party of Belorussia. What has been achieved here is a precise coordination among motor-vehicle operators, railroad workers, all services and clients. Propagandizing and introducing everything new and progressive which emerges during the course of socialist competition has become at this station an inherent part of the everyday activity of the engineering service, the shift supervisors, and the brigades. This is bringing out its own fruits. The station's group is achieving substantial successes. All types of rolling-stock idle time are being reduced here, as a result of which almost 35 cars are freed up daily. The experience of this advanced group has been adopted by the transport workers at Molodechno, Lida, Brest-Vostochnyy, Kalinkovichi, and other stations. And political information specialists can do quite a bit to disseminate this further.

The successful solution of problems with regard to improving the operation of railroad transport is inconceivable without the precise, well-coordinated work of all its units, of all sections of the hauling process. But this depends, to a large extent, on the level of Party guidance. This is why in the recently adopted decree of the CPSU Central Committee, "On Measures To Improve Party Political Work in Railroad Transportation," particular mention is made of increasing the production and sociopolitical activity of railroad workers. A large role in this matter belongs to the primary Party organizations and political information specialists. To a large extent, the final operational results will depend on how they are able to mobilize the Communists, as well as the groups of workers, to solve the problems posed at the November (1979) Plenum of the CPSU Central Committee in the speeches by Comrade L. I. Brezhnev.

The decree of the CPSU Central Committee also indicates the need to elevate the responsibility of management supervisors of all ranks for the state of affairs in the group, as well as the state in it of labor and production discipline. It is precisely in the unity of management and training work that there lies the security pledge for the successful activities of the railroad workers.

Unfortunately, not everyone is proceeding in the spirit of the Party's requirements. Recently the railroad's management was forced to dismiss from the post he occupied as chief of the Lupolovo Station Comrade Nasunov for serious shortcomings in the group's operation with regard to ensuring train traffic safety. And a rather incorrect position was taken by the supervisors of the Mogilev Division, who shielded a person who had failed in his work.

The efforts of railroad workers and all participants in the transport haulage system must be directed at strengthening labor discipline, developing socialist competition further, and increasing production and social activity. This must be done in order to successfully implement the plan assignments and socialist obligations, as adopted for the culminating year of the five-year plan.

Improvement Cited

Moscow GUDOK in Russian 12 Jun 80 p 3

[Article by A. Klevtsov, instructor of Belorussian CP Central Committee: "Party Concerns About Transport: Act Friendly, Be Organized"]

[Text] Belorussia's principal transportation artery is the railroad. More than 16,000 Communists work in its enterprises.

Over the extent of the Ninth and during the first two years of the Tenth Five-Year Plans this group, consisting of many thousands of Belorussian railroad workers, successfully coped with the state plans and regularly emerged as the winner in the All-Union Socialist Competition. But in connection with a growth in the volume of industrial and agricultural production and for a number of other reasons at the end of 1977 things began to get hectic on the railroad. Chronic shortages of cars ensued. At the same time their losses increased due to idle time on sidings and technical stations; loading platforms, stations, and inustrial sidings proved to be insufficiently developed.

The Central Committee of the Communist Party of Belorussia outlined specific measures, aimed at increasing the operational efficiency of all types of transport, paying particular attention to the use of rolling stock. The foundation of the organizational work was laid by the extensive adoption of the valuable experiments, approved by the CPSU Central Committee, made by the Lyublino Classification Yard, the transportation workers of the Leningrad Terminal, and enterprises of Chelyabinsk Oblast. A republican council was created, along with oblast commissions on coordinating the

activities of the various modes of transport. Coordination groups were formed at the major terminals. Public-service-minded persons set up controls over loading and unloading by introducing the package method in haulage, by speeding up the construction and renovation of container platforms and warehouses.

The Party oblast committees, in particular, those of Vitebsk, Mogilev, and others, outlined concrete plans for reducing car idle time at sidings and stations, and they drew into the implementation of these plans the Party organizations of railroad and industrial enterprises. The groups of two Mogilev plants--the metallurgical and the motor-vehicle--and the Osipovichi Cardboard-Rubberroid Plants mechanized their freight-handling operations, and they unleashed a broadly based competition to reduce car idle time. They considerably improved the utilization of rolling stock and addressed all the groups of the oblast's enterprises with a call to follow their example. The Central Committee of the republic's CP (Communist Party) approved this initiative and recommended that all Party organizations follow it.

The story of the three plants' operational experience was told in detail by republic-level, local, and railroad newspapers. Subsequently a republic-level school of advanced experience was organized in Mogilev with the participation of the chairmen of the oblast commissions on coordinating the work of the various modes of transport.

The sections on transportation and communications of the republic-level Communist Party Central Committee and the Belorussian SSR Council of Ministers conducted a joint investigations of reserves. Thus, railroad hauls over short distances were reduced. Over a four-year period around 800,000 tons of freight were shifted from the railroad to motor-vehicle transport, and more than three million tons were transferred to the river fleet. The 11th Plenum of the CPB (Communist Party of Belorussia) Central Committee, which was held in 1978, demanded that all supervisors of ministries and departments radically change their attitude towards railroad cars. The question was posed concerning the development of a material and technical base for the transportation system of industrial enterprises. After this, reviews were conducted in the localities of the technical operational processes of stations and clients, while new regulations were created for the centralized shipping in and shipping out of freight. In February 1979 the republic-level Communist Party Central Committee checked up on how the ministries and departments were carrying out the measures to increase the operational efficiency of railroad transport.

Later a commission was created under the jurisdiction of the CPB Central Committee to be concerned with controls over transport operations. It was presented with the task of ensuring the reduction of car idle time within freight-handling and technical operations at all industrial enterprises and on the Belorussian Railroad by 10 percent in comparison with the norm.

This republic has seen a widely developed inter-sectorial socialist competition, in which leadership has confidently been assumed by such major enterprises and associations as the Minsk Tractor Plant and the Mogilev Metallurgical Plant, the Novopolotsk "Polimir" Association, and others.

As a result of a great deal of work conducted by the CPB Central Committee and the republic's Council of Ministers, as well as Soviet organizations in the localities, we managed for the first time in November 1979 to fulfill our assignment with regard to car idle time on sidings. In order to eliminate underloading, which had increased during the course of previous quarters, in November more than 700,000 tons above the monthly plan were loaded and shipped. As compared with 1978, remaining, un-shipped-out freight was reduced by 10.3 percent, the level of freight-handling operations on days off was raised by 4.7 percent, there was a 20-percent increase in the shipping out of goods from various ports during the second shift, and car idle time at sidings was reduced by 0.3 hours. Furthermore, throughout all enterprises having sidings the losses from above-norm car idle times were reduced by a factor of 2.5 in comparison with 1978!

A search for reserves was unleashed in every group. Everywhere the Communists acted as the pioneers of innovation. A round-robin competition for valuable suggestions was proclaimed at a number of stations. The first to join in it was the group at the Minsk-Tovarnyy Station, which addressed a request to the railroad management to tighten up the assigned criteria with regard to car idle time. They were followed by others: groups from the Zhlobin-Classification, Minsk-Severnyy, Vysokolitovsk, and other stations. New frontiers were established in the competition, as it began to heat up. Of the railroad's 11 decisive stations last year eight achieved a reduction of the idle-time norms and proceeded along this indicator to the level of the 1980 norms. Included among these stations are Minsk-Tovarnyy, Zhlobin-Sortirovochnyy, Baranovichi-Tsentral'nye, Gomel', and Orsha.

In February of this year the republic's Communist Party Central Committee approved the operational experience of the group at the Minsk-Tovarnyy Station for the most effective utilization of cars and recommended that it be widely disseminated throughout the entire railroad.

The results of 1979 confirmed the correctness of the course which we had adopted. Practice has also demonstrated that rolling stock can be utilized even better.

Today many Party organizations of railroad and industrial enterprises have begun to work in close contact, jointly solving the complex problems of improving the use of transportation modes. Thus, cooperation with the railroad workers of the Novopolotsk Station has permitted the "Polimir" Association to reduce car idle time by 1.01 hours, as compared with the norm, and the production-technical staff of "Neftestroy" Trust No. 16--by 0.94 hours. Because of this, "Polimir" freed up 225 cars and the production-technical staff--540.

The republic-level Party organs are constantly rendering aid to the railroad workers, mobilizing groups to seek out reserves and introduce them into production, as well as to eliminate shortcomings. The enterprises' Communists have acted as the initiators of valuable innovations. Thus, the senior car inspectors of the Minsk-Tovarnyy Station, the Communists S. Pavlovich and M. Nekrash began a competition for the high-speed processing of trains and their dispatching with a guarantee of high quality. This initiative, approved by the railroad management and the dorprofsozh' (Railroad Committee of the Railroad Transportation Workers' Union), has been widely disseminated. Route dispatch of freight was brought up to 54.3 percent. The idle time of trains at technical stations has been sharply reduced. The introduction of a system of track repair which utilizes temporary posts has extended the traffic capacity of sections and expedited the movement of trains during the "window" period.

Of great value was the initiative made by the train dispatcher of the Mogilev Division, the Communist V. Krupenko, who began a competition for a pilot-project dispatcher section, on which all the stations would fulfill their norms with regard to car idle time. After being approved by the Ministry of Railways and the Trade-Union Central Committee, it was picked up by all the divisions of the Belorussian Railroad. In competing for the pilot-project dispatcher section, the railroad workers of Mogilev, Brest, Baranovichi, and Vitebsk have done a great deal to improve the haulage process. All ten stations of the section under V. Krupenko and his colleagues fulfilled their norms with regard to idle time. Of the several dozen stations with freight operations of the Baranovichi Division only one overstated the norm of car idle time in the difficult fourth quarter of last year.

Life has shown that at those stations where there are junction Party committees (Orsha, Minsk, Baranovichi, Grodno, Lida) the rolling stock is utilized more efficiently. An important role here has been played by the secretarial councils of Party organizations which were created upon the recommendation of the CPB Central Committee; they operationally influence the course of competition of integrated shifts, solve acute problems, and strengthen cooperation with adjacent units.

Analysis of the work of the main-line group indicates that there are still many defects in planning. This lowers the effectiveness of socialist competition. In the republic there was a sharp upswing in freight operations, but, for some reason, the planning organs of the Ministry of Railways have not taken this into consideration in setting up the norm for car turnover. It is impossible to cover such planned "losses" by any sort of successes in reducing car idle time on sidings.

Moreover, during recent years on the Belorussian Railroad there has been a sharp increase in the traffic of empty-car runs, following the regulations, for example, from the Baltic Railroad to the Donetsk or Moscow Railroads. At the same time, in accordance with the Ministry of Railways' plan, the

railroad is short every day by from 1,700 to 2,000 cars from its neighbors for unloading. This reduces its freight-handling capacities and leads to the non-fulfillment of tasks with regard to ton-kilometer operation.

It would also be desirable for the Ministry of Railways to turn its attention to the so-called boundary transitions. What occurs? During the first ten days of the month, as a rule, mass goods are not shipped out, during the second ten days--about ten percent of the monthly plan, while during the remaining third of the month it amounts to ninety percent.

In the culminating year of the Tenth Five-Year Plan the main-line workers are faced with large tasks in regard to assuring the republic's national economy of continuous transportation. After the publication of the decree of the CPSU Central Committee on measures for improving Party-political work in the field of railroad transportation Party meetings were held everywhere, and broad measures were outlined for increasing the discipline and responsibility of the main-line workers. All this will undoubtedly play a positive role in increasing the operational efficiency of all enterprises and will aid the railroad workers to successfully cope with the tasks of the five-year plan.

2384
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SHORTAGE OF SOVIET TRAIN CARS DELAYS FINNISH SHIPMENTS

Helsinki HELSINGIN SANOMAT in Finnish 12 Jun 80 p 30

[Text] Due to transport problems, Finnish lumber industry shipments to the Soviet Union are over a month behind schedule. This is due to the fact that Finland has not gotten enough Soviet railroad cars.

Finland's wood-processing industry products are shipped to the Soviet Union in closed Soviet cars. Daily requirements amount to 200 cars but only from 120 to 150 a day have been received.

The shortage of cars is greatest in spring, during the planting season, and in fall when the Soviet Union needs every bit of additional transport equipment available for the harvest transport.

The Osuuskunta Transfennica, the organization that ships lumber industry products, says that the biggest problems are the irregularity and unevenness of the supply of cars. It is hard for the industry to adjust to a situation in which on one day no cars come in and on another tens of cars do. The cooperative says that there ought to be enough railroad equipment and its availability certain.

The shortage of cars also results in finished products' piling up in warehouses. According to figures from Finnboard, of the Finnish Cardboard Association, in the first half of this year the association has been able to ship from 41,000 to 42,000 tons of cardboard products to the Soviet Union, although contracts call for 50,000 tons. This being the case, from 8,000 to 9,000 tons, over a month's production, is in storage, a good half of which is lying there only because of the transport problems.

Finnboard says that there is good reason to consider the basic problem, the shortage of cars, again and that we will probably have to look for other means of transport. One possibility that has been mentioned is shipments in open cars or on barges by water routes.

According to Finnboard, the shipping situation is worse than usual this year because tow-thirds of the production for the entire year had been contracted for shipment during the first half of the year. Another source of delay is the Moscow Olympics.

Yhtyneet Paperitehtaat Oy Waiting for 138 Cars

Juha Niemela, manager of Yhtyneet Paperitehtaat Oy's production unit, Paperituote, says that the shipping situation has been tight throughout the year. It was at its worst 2 years ago when there were 160 cars full of fin shed products in storage.

This week they have managed to get rid of a little of the stuff that has been in storage but 138 carfuls of paper bags, corrugated cardboard cartons and polyethylene paper are still waiting to be shipped.

"Inside storage doesn't even begin to provide enough room, so we have had to stack the goods outside. In summer it's not too bad, but in winter water and freezing temperatures result in additional costs," Niemela says.

According to Niemela, the critical shipping situation is in part due to the fact that Yhtyneet Paperitehtaat Oy's sales to the Soviet Union have increased by a fourth in comparison with last year.

Niemela says that the problem has been discussed with the Soviet buyer, but the Yhtyneet Paperitehtaat Oy has been given to understand that a solution will not be forthcoming within the next few years.

As one possibility, the Yhtyneet Paperitehtaat Oy has considered unburdening its warehouses by shipping its production in open cars. "In the Soviet Union they are unwilling to do this because they do not have enough equipment to unload open cars there," Niemela says.

Yhtyneet Paperitehtaat Oy Paperituote's daily production comes to 20 railroad cars and annual requirements amount to 3,300 cars. "More cars arrived earlier this year, but even with them the total will probably not be enough," Niemela says.

100-Car Accumulation on Pietarsaari

The Oy Wilhelm Schauman Ab's Pietarsaari mill has been waiting several weeks for the shipper to pick up its kraft paper and bag production. During a 2-week period in May-June, not a single car was sent to the mill.

"Our stocks have been spread all over the port. We need at least 100 cars to clear the area, but we haven't the faintest idea when we will get them," Schauman's Pietarsaari mill says.

"During the past few days, the situation has eased up a bit with the arrival of enough cars to carry a day's production."

At the mill, they are concerned over the fact that interest and storage costs, which the company has to pay for, will rise to a disproportionately high level. Nor can the mill's operation be adapted to the railroad cars either. Instead, the kraft paper and bags will have to be accumulated in the warehouses.

Imports As Usual

For export purposes, Finnish equipment is not used because the Soviet railroad facility, the October Railways, does not accept VR [State Railways] cars. As we know, this is due to the fact that returning Finnish cars would pose considerable difficulties.

Imports from the Soviet Union have been moving as usual. Rail shipments are generally handled with open cars, of which there are enough. Closed cars arrive in Finland empty.

The shortage of equipment is also due to the fact that, following developments on world markets, the price of Soviet oil has risen sharply and we have had to pay for imported oil with a rapidly increasing amount of goods.

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FEATURES DETERMINING A SHIP'S QUALITY

Leningrad SUDOSTROYENIYE in Russian No 2, Feb 80 pp 3-6

[Article by V. V. Malyshev: "The Quality of a Ship and Its Determining Characteristics"; source-bracketed numerals 1 through 8 throughout text refer to bibliography entries]

[Text] The struggle for high product quality is one of the central tasks of modern production. The efforts of scientists, designers, engineers and workers have been aimed at improving product quality. At the same time, many specialists interpret the concept of "product quality" differently. For example, they include in it just certain characteristics which determine quality or, conversely, characteristics which do not reflect product quality. Often by this term they mean quality of manufacture, and so forth. It seems advisable to define more accurately the terms and concepts associated with the "ship quality" category, as well as to classify the characteristics which determine the quality of ocean-going cargo vessels.

In shipbuilding, any characteristic of a ship--buoyancy, stability and the like--traditionally is referred to as a "quality." They say "running qualities" and "seagoing qualities" when they mean a group of characteristics of a ship. L. M. Nogid, in a work [1] especially written to put the terminology in order and to define more accurately the basic concepts and identifications which relate to a ship's characteristics, qualities and indicators, recognized "that in other fields of science the term quality already has been replaced everywhere by the term characteristic," and notes that "quality is the established nautical designation for what is called a characteristic in nonnautical sciences." True, L. M. Nogid considered it possible to employ the concept "quality" both in referring to evaluation of a ship as a whole and in evaluating a ship's specific "characteristics and indicators." [1] Even in a new textbook on ship design [2], although tactical and technical or technical and operational characteristics are referred to, speed and cargo-carrying capacity are identified as both qualities and performance.

It should be noted that inaccuracy in terminology in this matter also has been observed until recently in other industrial sectors, such as aircraft manufacturing. Thus, the expressions "flight qualities" and "flight characteristics" and "combat qualities" and "combat characteristics" are used in one and the same sense in a work [3]. And speed is referred to as a quality, as a characteristic, and as an indicator.

In order not to contradict accepted terminology consolidated by standardized materials [4], the term "quality" should be used when referring to evaluation of the sum total of a ship's characteristics, but not for identifying a characteristic,* an indicator, performance and the like, or their groups. According to the GOST [All-Union State Standard] [4], product quality consists of "the sum total of a product's characteristics which determine its suitability to satisfy definite requirements in accordance with its purpose." In the same place the definition of a product characteristic was given--"an objective feature of a product which appears when it is made, operated or consumed." A product has many different characteristics. For this reason, "product quality does not include all a product's characteristics, just the characteristics which are connected with the ability to satisfy definite requirements in accordance with its purpose."

Let us note that product quality incorporated in the process of scientific research and design developments and "being created" in the process of production, in the final analysis, should correspond only to the plan, which is ensured by the quality of manufacture. For this reason, we will refer to the characteristics which determine the quality of a product (in this case, of ships) as its objective features, incorporated in its planning and manifested in use, which determine the product's suitability to satisfy requirements in accordance with its purpose. From this it also follows that all product characteristics which become part of its quality are, in a general sense, consumer characteristics. [5]

Academician V. L. Pozdyunin distinguished four groups of qualities (that is, characteristics) in accordance with the fundamental requirements he formulated for ships as complex structures [6]: operational-technical; operational-economic; production-technical; production-economic. Based on this classification, all the characteristics of a ship can be divided into two groups:

*A similar view with regard to characteristics is defended by A.A. Kapusta in the article "Principles for Ensuring the Quality of Cargo Ships" (Trudy NKI [Proceedings of the Nikolayev Institute of Shipbuilding imeni S.O. Makarov], 1978, No 140).

--characteristics which respond to production-technical and production-economic requirements made on the ship. We will call them conditionally production characteristics, since they are manifested in the process of shipbuilding production, that is, in the process of planning and construction, and in this way characterize the ship as a product of labor;

--consumer characteristics, that is, characteristics which determine the quality of the ship and which respond to the operational-technical and operational-economic requirements placed on it. These characteristics are manifested directly in the process of operation (consumption) and in this way characterize the ship as a means of labor.

For the consumer, how much cargo a ship can carry and how fast and how far it can travel with a sufficient degree of safety and comfort for the crew with acceptable operating expenditures are of foremost importance. In other words, he is interested in such consumer characteristics of a ship as capacity, operating economy, reliability, and so forth. V. L. Podyunin called these operational characteristics "which basically characterize every ship from the point of view of its special purpose and use." [6]

Of course, such characteristics as buoyancy, unsinkability, and others "which any ship, as a floating structure, must possess" (V. L. Podyunin called them navigational characteristics [6]), also should suit the consumer to a certain extent. At the same time, let us keep in mind that many of them are regulated by appropriate norms and specifications.

Let us also note that characteristics can be simple as well as complex or integrated. An example of a complex characteristic is the reliability of a ship, which covers such simple characteristics as trouble-free operation, maintainability, endurance and service life [sokhranyayemost'] [4]. Characteristics, in turn, are characterized by indicators, the elaboration of which present specific difficulties.

In order to improve the quality of ships, what it consists of, how it is established, and which characteristics reflect it must be clearly described. The classification of characteristics which determine the quality of oceangoing cargo ships can be presented in an overall view by the following diagram (Figure 1). In the proposed classification, the navigation characteristics (integrated and simple), the identification of which is a rather complicated matter requiring special study, are not examined in detail.

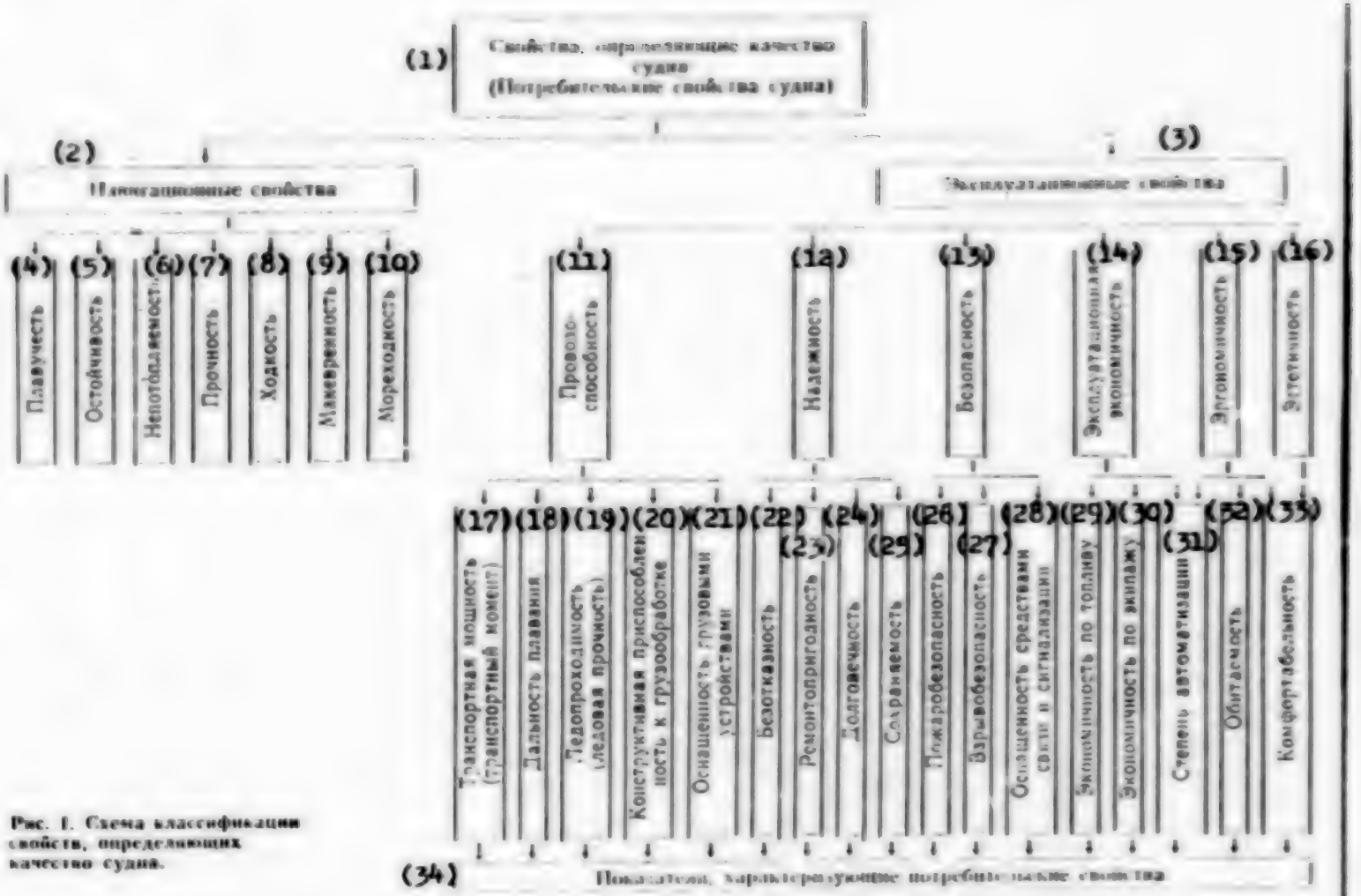

Рис. 1. Схема классификации свойств, определяющих качество судна.

DIAGRAM CAPTION

Figure 1. Diagram of the classification of characteristics which determine ship quality.
/Key on following page/

Key:

1. Characteristics which determine a ship's quality (consumer characteristics of a ship)
2. Navigation characteristics
3. Operational characteristics
4. Buoyancy
5. Stability
6. Unsinkability
7. Endurance
8. Propulsive performance
9. Maneuverability
10. Seaworthiness
11. Capacity
12. Reliability
13. Safety
14. Operating efficiency
15. Ergonomic aspect
16. Esthetic aspect
17. Transport power (transport moment)
18. Cruising range
19. Ice passability (ice endurance)
20. Structural adaptation for cargo handling
21. Extent of equipment with cargo-handling gear
22. Trouble-free operation
23. Maintainability
24. Durability
25. Service life
26. Fire safety
27. Blast resistance
28. Extent of equipment with communications and signaling facilities
29. Fuel economy
30. Crew efficiency
31. Degree of automation
32. Habitability
33. Comfort
34. Indicators which represent consumer characteristics

Among economists concerned with matters of product quality, the nomenclature of quality indicators raises considerable differences of opinion. Adherents of a broad interpretation are concerned with characteristics which determine quality such as technological effectiveness, the extent of unification and standardization, economic indicators, and so forth. In the prevailing procedural and standardized materials [4], the following nomenclature of indicators specifying the basic characteristics which determine product quality is listed in general form: indicators

of purpose, indicators of reliability, ergonomic indicators, esthetic indicators, indicators of technological effectiveness, indicators of standardization and unification, patent and legal indicators, and economic indicators.

While the first four groups of indicators actually describe the consumer characteristics of a product and its quality, this by no means can be said about the rest. Thus, the technological effectiveness of a product, the extent of its standardization and unification, and the extent to which it is clear of a patent [patentnaya chistota] cannot reflect product quality (for example, an article's prefabrication (unitization) coefficient or, for ships, the labor-intensiveness of construction which relates to unloaded displacement), since they do not determine the capability of satisfying requirements in accordance with purpose and are not manifested in an obvious form in the process of operation. These characteristics, which characterize a ship as a product of labor, can rightfully be placed in a category with production characteristics.

Moreover, patentability and the ability to protect a patent--these are characteristics of an invention, not a product. The presence of a patent does not attest to product quality, but only establishes the exclusive right of the patent holder to his invention. In examining the extent to which a product is clear of a patent, let us note that it reflects to a greater extent competitiveness, which is important in determining the advisability of manufacturing a given product. At the same time, it can be clear of a patent not because of some new technical solutions, but for the reason that the period of validity for existing patents has expired. Finally, the presence of protected original technical solutions which alter a product's design and, as a rule, the procedure for its manufacture can bring definite economic gains by reducing expenditures for production, but can retain consumer characteristics without change. If as the result of particular technical innovations product quality is improved all the same, this should be reflected in the consumer characteristics, but in this case the patent indicators will be only superfluous at best, which confirms the error of including them among product quality indicators.

With regard to economic (cost) indicators, they can characterize product quality only in the event that they evaluate individual characteristics which are manifested in the process of its use, that is, consumer characteristics, such as maintainability when the status of the repair base is identical.

Economic indicators which evaluate individual production characteristics (technological effectiveness, the extent of standardization and unification), as well as the product as a whole (construction cost, operating expenses), characterize not quality itself, but the inputs connected with creating and using a product of given quality. But indicators

such as the pay-off period for capital investments and expenses incurred for a unit of output or work, and so forth, directly reflect the economic efficiency of a given product.

It should be noted that certain production characteristics examined above to some extent have an effect on product quality (an example might be the dependence of reliability on the technological effectiveness of a product), but they themselves are not characteristics which determine quality. These characteristics relate to a greater extent to so-called "design quality," since they reflect the quality of plan drafting.

Thus, in addition to the concept of "product quality," the "plan quality" and "quality of product manufacture," which can be represented in the following way (table) in accordance with the sphere of manifestation, must be distinguished.

Sphere in which quality is manifested	Scientific research work and project planning	Production	Operation
Type of quality	Design quality	Quality of Product Manufacture	Product quality

"Much need not be said about the importance of ship plans," wrote V. L. Pozdyunin [7], "since it is sufficiently well known and understood that this quality by itself, in the final analysis, determines the quality of the ships built as well..."

At present, evaluation of the expected technical level and quality of a ship being planned is carried out for the first time in accordance with engineering plan materials, that is, when the ship already has been planned. However, the necessity of evaluating the quality of a ship emerges much sooner, in the initial stage of planning, when quality is just being established and there are different alternatives for technical solutions which require qualitative and cost evaluation.

Taking into account the principle of continuity in formulating planning solutions in the work [6], three aspects of plan quality have been singled out: the quality of the technical scheme, characterized by engineering innovation and by the level of the indicators of the product being developed; the quality of engineering calculations and substantiations; and the quality of the drafting and documentary formulation of the plan.

However, in speaking about the sum total of consumer characteristics of a ship that is being planned, it would be inaccurate to use the term "plan quality," inasmuch as only the first aspect of quality, as we see it, refers to the quality of the ship being planned (or to the "quality in accordance with the plan"*). And the other two aspects reflect the quality of the plan's implementation. Moreover, the majority of indicators which characterize the technical perfection of plan drafts, as already noted, do not reflect the ship's consumer characteristics in an explicit form (for example, the deadweight-displacement ratio, the coefficient of effective underdeck space utilization, and indicators which characterize the extent of unification, standardization, patent protection, and so forth) and they are needed only for evaluating the results of designing activity.

For this reason, it must be specified that the quality of the technical scheme should include, together with the technical and economic level of the plan [8], which reflects both the technical perfection of the drafts, taking into account the economic method of implementing them, and the skill of the designers, the quality in accordance with the plan as well. We will comprehend a ship's quality in accordance with the plan to be the sum total of consumer characteristics of the ship in any stage of planning.

The quality of a ship's construction is specified in the plan, and it remains for the plant which builds it to achieve the quality in conformity with plan documentation. Thus it is impossible, strictly speaking, to improve product quality in the production stage (only if modifications which improve a ship's consumer characteristics are not introduced in the plan), but can only be provided or not provided (made worse) in the specific degree of quality assigned in the plan.

It follows from this that the expression "the ensuring of product quality," but not "improvement in product quality" is more acceptable with regard to the activity of the manufacturing enterprise. The latter, in

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* "Quality in accordance with the plan is the quality assigned by the designer," writes Roland Kaplan in the book "Prakticheskoye vvedeniye v upravleniye kachestvom" [Practical Introduction to Quality Control], Moscow, Izd-vo standartov, 1976, p 26.

fact, is the goal of the process of planning.* Since the quality of a ship can only be judged after construction is finished, it is obvious that it is made up of the quality in accordance with the plan and the quality of construction (Figure 2). If the same indicators which characterize consumer characteristics, in accordance with which the ship's quality will be evaluated conclusively in the process of operation, are

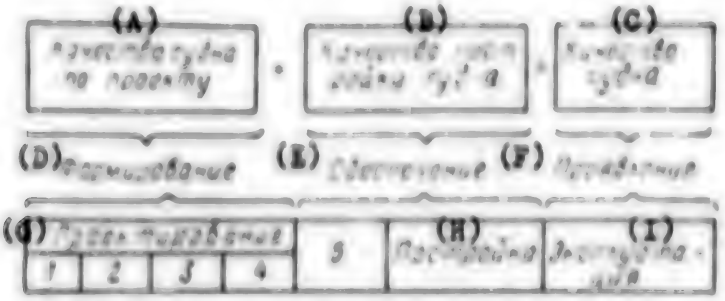

Рис. 2. Схема формирования, обеспечения и проявления качества судна на основных этапах его жизненного цикла.

1 – техническое задание; 2 – техническое предложение – проектная проработка технического задания; 3 – эскизный проект; 4 – общий проект (этапы разработки проектной конструкторской документации и их последовательность приведены в соответствии с действующей отраслевой документацией); 5 – рабочая конструкторская документация на постройку судна

DIAGRAM CAPTION

Figure 2. Diagram showing how a ship's quality is formed, ensured and manifested in the basic stages of its life cycle.

Key:

A. Ship's quality in accordance with the plan
B. Quality of ship's construction
C. Quality of the ship
D. Forming
E. Ensuring
F. Manifestation
G. Design
H. Construction
I. Operation

1. Technical assignment
2. Technical proposal--planning study of technical assignment
3. Preliminary draft
4. Engineering plan (stage of developing draft design specifications and their sequence in accordance with standardized documents in effect)
5. Working design specifications for ship's construction

* It would be more accurate, in speaking of complex systems for product quality control (KSUKP) in effect at enterprises which do not plan the product they make (and they constitute the majority), to use the terms "complex system for controlling the quality of a product's manufacture" or "complex system for ensuring product quality."

included in the quality in accordance with the plan, this will make it possible to evaluate the ship's quality comprehensively in all stages of its life cycle. A conditional separation of the quality of technical solutions from the quality of their implementation (Figure 3) makes it possible to evaluate the ship's quality comprehensively in all stages.

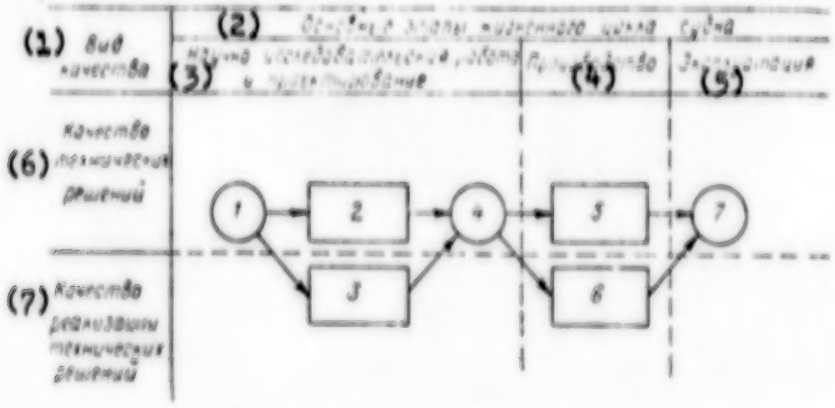

Рис. 3. Схема формирования качества судна.

1 — качество судна по замыслу; 2 — изменение качества судна в процессе проектирования; 3 — качество проектирования судна; 4 — качество судна по проекту; 5 — изменение качества судна при внесении изменений в проект при постройке; 6 — качество изготовления судна; 7 — качество судна.

DIAGRAM CAPTION

Figure 3. Diagram of the formulation of ship quality.

Key:

(1) Type of quality
(2) Basic stages in a ship's life cycle
(3) Scientific research work and planning
(4) Production
(5) Operation
(6) Quality of technical solutions
(7) Quality of technical solutions' implementation

1. Quality of ship in accordance with its conception
2. Change of ship's quality in the process of planning
3. Quality of the ship's planning
4. Quality of the ship in accordance with the plan
5. Change in ship's quality when modifications are incorporated in the plan during construction
6. Quality of ship's manufacture
7. Quality of the ship

Evaluation of a ship's quality in accordance with the plan as a whole and of individual technical solutions throughout the entire process of planning, as well as their commensuration with proposed expenditures, will make it possible to control quality from the ship's very inception and, in the final analysis, will contribute to its improvement. In turn, a sound classification of characteristics which determine the quality of ships and indicators which reliably characterize them will make it possible to specify ways of improving ships' quality, for "...study of

those ways which lead to improvement in the quality of the plans for ships," V. L. Pozdyunin wrote as far back as 1935 [?], "must be accorded particular attention, since the matter of product quality under socialist conditions is exceptionally important."

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BRIEFS

VLADIVOSTOK MERCANTILE PORT--Mikhail Fedorovich Rabkanov, deputy chief of the Vladivostok mercantile port, says that the port has made good preparations for this year's navigation season and the storage of cargo in warehouses has been better organized than during the previous years. So far the port has not experienced any problems in unloading cargo destined for Chukotka off railway cars and storing such cargo in warehouses. But there is one very serious problem as a result of lack of coordination of transportation conditions by the Ministry of Foreign Trade, the Ministry of Maritime Fleet and the Ministry of Railways with regard to imported liqueur and spirits which must be loaded in railway cars. More than 1,500 tons of such cargo is currently in a warehouse which was supposed to be used by the port for storing cereals and fodder destined for the North. There are no other problems in the port. [Vladivostok Maritime Service in Russian to the Pacific Far East 0710 GMT 1 Jul 80]

NAKHODKA SHIP REPAIR PLANT--The Nakhodka Ship Repair Plant has begun using polymer bonding in ship repairs, which reduces labor consumption use of materials in repairing hulls and protects against corrosion. Polymer Bonding has been used extensively on the decks and superstructures of the vessel Saransk. [Vladivostok Domestic Service in Russian 0215 GMT 19 Jun 80]

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